

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE
NATIONAL PROGRAM STAFF
Beltsville, Maryland 20705

Eat
WSS

January 8, 1976

Subject: Losses Caused by Insects of Medical and Veterinary
Importance and Economics of Controlling these Insects

To: D. E. Weidhaas, Gainesville, FL J. W. Snow, Mission, TX
R. O. Drummond, Kerrville, TX W. M. Rogoff, Fresno, CA
H. C. Chapman, Lake Charles, LA N. O. Morgan, Beltsville, MD
B. M. Glancey, Gulfport, MS R. H. Jones, Denver, CO
G. G. Holt, Fargo, ND G. T. Fincher, Tifton, GA
R. L. Harris, College Station, TX I. H. Roberts, Albuquerque, NM

As all of you are aware, the economics of insect control has become an important factor in the ARS budgeting process. In the past, ARS has devoted little time to actual economic data as related to insects. This may change in the near future. We may be required to obtain more precise data on such things as losses caused by specific species of insects at various population levels, the population levels of insects above which control is required to prevent a loss (economic injury level), and comparative effectiveness of various insecticides on yield, in addition to the normal efficacy data which is obtained.

Specifically, I hope to assemble in the near future published data on losses, benefits of control, and costs of control for various insects, ticks, and mites attacking livestock and poultry. The following type of information is needed:

1. Losses (weight gain, milk production, egg laying, hide value, disease transmission, etc.) caused by insects in a non-controlled situation, with some indication of the population level of the insects.
2. Benefits (weight gain, milk production, reduced disease transmission, etc.) of applying various control measures against specific insect species.
3. Comparative studies on yield among various insecticides.
4. The economic injury level.
5. Actual \$ costs of control procedures and \$ benefits realized from insect control.

RECEIVED

JAN 15 1976

AREA OFFICE
WESLACO, TEXAS

I would appreciate each of you sending me reprints of publications by your staff which contain information on any of the above points. In addition, if you are aware of other publications with this type of information, please send either the reprint or the reference.

Please send me this information by March 1, 1976.



D. A. Lindquist
Staff Scientist
Insects Affecting Man and Animals

cc:

D. F. Davis
J. R. Johnston
E. B. Knipling
C. H. Schmidt
✓ E. A. Taylor
A. I. Morgan, Jr.
A. A. Hanson
C. E. Evans
W. M. Bruce
E. L. Kendrick

*Fast
with*

Screwworm Research Laboratory
P. O. Box 986
Mission, Texas 78572

March 25, 1976

Subject: Visit to the Boll Weevil Research Laboratory
to Discuss Attractants Research

To: Dr. Paul A. Hedin, Research Chemist
USDA, ARS, Boll Weevil Research Laboratory
P. O. Box 5367
Mississippi State, Mississippi 39762

In accordance with our phone conversation of March 24, 1976, I plan to visit your laboratory during the week of April 5-9. I plan to arrive on Monday, April 5 and depart late Thursday, April 8.

I will bring along some of our extracts and hope to discuss with you some of our problems of separations and analysis.

Harold E. Brown

Harold E. Brown
Research Chemist

cc E. A. Taylor, Area Director
C. D. Ranney, Area Director

RECEIVED
MAR 26 1976
AREA OFFICE
WESLACO, TEXAS

Screwworm Research Laboratory
P. O. Box 986
Mission, Texas 78572

March 25, 1976

Subject: Visit to the Boli Weevil Research Laboratory
to Discuss Attractant Research

To: Dr. Paul A. Nedin, Research Chemist
USDA, ARS, Boli Weevil Research Laboratory
P. O. Box 5367
Mississippi State, Mississippi 39762

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Harold E. Brown

Harold E. Brown
Research Chemist

E. A. Taylor, Area Director
C. D. Ranney, Area Director

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MAR 25 1976
AREA OFFICE
WESTLACO, TEXAS

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE
NATIONAL PROGRAM STAFF

Beltsville, Maryland 20705

January 3, 1977

Subject: Report of Screwworm Research Meeting

To: Participants

The subject report is enclosed. The report has been submitted to Dr. Kinney with a request that it be discussed with Mr. Edminster and APHIS.

D. A. Lindquist
D. A. Lindquist
Staff Scientist
Livestock & Veterinary Sciences

Enclosure

cc:
T. B. Kinney, Jr.
M. T. Ouye
L. R. Miller

RECEIVED

JAN 11 1977

AREA OFFICE
WESLACO, TEXAS

Report of Screwworm Research Meeting, Fargo, Oct. 28, 1976

I. Introduction

A meeting was held in Fargo on October 28, 1976, to review current research and future research needs of the screwworm program. Emphasis was placed on future research needs as related to the expanded APHIS eradication program and the future transfer of the Mission APHIS and ARS activities to Tuxtla-Gutierrez, Mexico.

II. Meeting Objectives

1. Discuss types of research, objectives, and priorities that ARS Scientists believe should be conducted in support of the screwworm eradication program.
2. Discuss support (SY and \$) needed and location for research.
3. Prepare brief report for discussion with APHIS.

III. Recommendations

1. It is recommended that screwworm research be continued in the U.S. after the research activities of the Mission, Texas, ARS laboratory are transferred to Mexico; it is further recommended that the Metabolism and Radiation Research Laboratory, Fargo, be the location for this continuing research.^{a/}
2. If no additional funds can be made available, it is recommended that:
 - a. the balance of research support between Fargo and Mission be maintained as it is at the present time.
 - b. the present rearing facility at Fargo be upgraded to allow year-round rearing even though there may be no addition of personnel and the facility is too small for genetic research.
3. It is recommended that a budget increase be made for screwworm research in FY 78 or FY 79. We believe that APHIS should be asked to assist in preparation of the proposal. APHIS could either request the funds directly for use by ARS or could support an ARS request. The increase would accomplish the following:
 - a. Increase the number of scientists working at Mission/Tuxtla-Gutierrez to 10 with a budget

^{a/} When the screwworm is eradicated from the U.S. and the northern tier of Mexican States, the Mission APHIS and ARS facilities will be closed to eliminate any possibility of reinfestation.

increase to adequately support these scientists. Emphasis will be placed on ecological studies, including possible isolated strains in Mexico, behavior of laboratory produced insects, developing of population reduction technology, developing less expensive larval diets, and developing quality control technology. This involves 2 SY and \$400,000.

- b. Provide \$200,000 for support of a geneticist and a physiologist/biochemist at Fargo. The research conducted should be of fundamental nature involving both genetics and physiology/biochemistry. Additional space would be required to house these activities.
- c. Pay for the construction of a screwworm rearing facility at Fargo of approximately 5,000 feet square for year-round rearing of the screwworm in an adequate fly security building and for housing the two scientists with support personnel. This facility should be constructed so that it could be expanded to handle other quarantine insects. It is estimated that the basic facility will cost approximately \$500,000.

IV. Report

A. Eradication Program:

The APHIS screwworm eradication program is rapidly expanding with the completion of the Tuxtla-Gutierrez, Mexico, rearing facility. It is anticipated that this plant will produce approximately 200 million sterile screwworm flies per week beginning early next year. This facility can produce 700 to 400 million flies/week but budgetary restrictions limit production to 200 million/week. The screwworm flies from the Mexico facility will be utilized in northern Mexico. The Mission, Texas, APHIS Screwworm Facility will be releasing flies primarily in south Texas and northern Mexico. It is anticipated that with the more than doubling of the number of screwworm flies the pest will be eradicated from the United States and the northern States of Mexico within three to five years. The 009 strain of screwworms is being reared in the Tuxtla-Gutierrez factory, and will continue to be reared as long as the majority of the releases from that facility are made in northern Mexico, providing there is no deterioration of the strain as measured by ARS scientists. Strain replacement will be primarily on an as needed basis; however, a replacement for the Mission facility is scheduled for September 1977.

Upon completion of the eradication program in south Texas and the northern tier of Mexican States, it is anticipated that the Mission APHIS Screwworm rearing facility will be closed. At that time it will be necessary that the ARS Screwworm Research Facility be closed because of the danger of reinfesting Texas with screwworms. It is anticipated that this will occur between 1980 and 1982. From 1977 until the closing of the Mission ARS Research Facility, a gradual transfer of ARS activities from Mission to Tuxtla-Gutierrez is anticipated. With the completion of this transfer, it could result that there is no ongoing screwworm research conducted by ARS in the Continental U.S. The group strongly felt that this should not occur. The difficulties in conducting research necessary to support the APHIS Program will be conducted in Mexico. However, some of the more basic research could be and should be conducted in the Continental U.S.

B. Current Screwworm Research - Mission:

The current research program presently conducted from the Mission ARS Facility is a broad based program dedicated to supporting the APHIS Screwworm Program. Most of the research is field oriented with laboratory backup. The major research efforts are as follow:

1. Attractants

The development of Swormlure II and the new trap design is a direct result of research conducted at Mission. This new attractant and trap have been adopted by APHIS. Swormlure II is being developed as an attractant/insecticide combination which may be effective in reducing the population of wild flies prior to the release of the sterilized flies. The successful development of this system would reduce the cost of the eradication program dramatically. This concept will be evaluated on Curacao. Research is conducted to determine the chemical or chemicals involved in attracting screwworm flies to wounds of warm blooded animals and flowers; the latter is the site of mating.

2. Larval Diets

Continuing research is conducted on the development of larval diets with emphasis on alternate sources of protein. The cost of the protein in larval diets

has successfully been reduced by ARS scientists and once implemented will result in savings of approximately \$1 million/year. Continuing efforts are being made to further reduce this cost.

3. Quality control

Research involves development of methods of measuring the quality of reared sterilized released screwworm flies. It is anticipated that the majority of these methods will be utilized by APHIS Methods Development personnel when they have been satisfactorily developed. Included are sight, sound, isozyme systems, measurements of field sterility, etc. The necessity of developing quality control measuring systems cannot be overemphasized.

4. Engineering

Research is continuing on the engineering aspects of developing techniques for use of the attractant/insecticide methods of population reduction for Curacao.

5. Radiation technology

Research has recently resulted in the reduction of the dosage used in the APHIS Program with an obvious increase in the quality of the released insects.

6. Strain development

ARS has accepted the responsibility of developing appropriate strains of screwworms for use in the APHIS Eradication Program. Thus this is a continuing area of research and is closely tied to the development of quality control technology.

C. Current Screwworm Research - Fargo:

The research effort in NRP 20480 on screwworms at Fargo involves approximately 0.5 SY. The insect can only be reared at Fargo seven months per year because of the lack of a fly security building. During the time the insects are available, a number of fundamental studies are conducted. Unfortunately, the lack of year-round rearing results in an off again on again research approach is discouraging. However, the results produced during the three years this program has been underway are remarkable. Certain types

of research, including genetics, are excluded by the off again on again availability of insects and limited space available. The research conducted includes:

1. Oogenesis

The effect of temperature on oogenesis is being studied. These data are important in estimating rate of reproduction and sexual maturity of wild populations.

2. Attractants

Research on attractants is being conducted; at the present time emphasis is being placed on developing olfactometry techniques. The spent larval media is an attractant and is being utilized to develop the techniques which can be used for studies on the wound attractant, flower attractant, etc.

3. Physiology/Cytology

A method of determining whether a male fly captured in the field is a wild fly or a laboratory reared sterile fly has been developed. This will be utilized by the scientists at Mission. The development at Fargo of a method to determine whether a female fly has deposited eggs or not is currently being extensively utilized by scientists at Mission. Additional studies are planned involving electro-physiology of chemoreceptors of the screwworm fly.

4. Extramural research

North Dakota State University is developing radar tracking systems for the screwworm fly. This research is conducted in close collaboration with scientists at Fargo, and it is anticipated that the device will be field tested during 1977.

D. Future Research Needs:

The discussion pertaining to future research needs was conducted under the following assumption:

1. Continuing research will be required for a minimum of 15 years to support the APHIS Screwworm Eradication Program.

It is anticipated the Eradication Program will continue until the pest has been eradicated from Mexico and Central America as well as the infested islands in the Caribbean.

2. That the Mission Research Facility will be closed within three to five years.
3. There is a need to develop methods to reduce the population of the screwworm fly prior to the utilization of the sterile male technique.
4. There is a need for more genetic research on the screwworm which may lead to alternative methods of eradication.

The cost of the APHIS Screwworm Program has increased from about \$10 million per year a few years ago to the current \$30 million per year. This increased cost of the APHIS Eradication Program is partially a result of the completion and operation of the Tuxtla-Gutierrez facility.

Note was made of the recommendation of the Lincoln-Eden Screwworm Report (prepared for APHIS at the request of Congress) which recommended that 11 scientists conduct research in support of the APHIS Screwworm Eradication Program in south Texas and Mexico and that 2 scientists conduct highly specialized research in other laboratories.

The cost effectiveness of research conducted in support of the screwworm eradication is extremely high. Estimates range from \$30 to \$100 benefit for \$1 dollar spent on the total program. Therefore, the cost of research can have an immensely favorable cost/benefit ratio. As an example, the recent changes in the larval diet which were developed by ARS scientists and subsequently implemented by the APHIS rearing factory at Mission and Tuxtla-Gutierrez will result in annual savings of about \$1 million/year.

It was agreed that there should be a continuing screwworm research program in the U.S. after the Mission, Texas, ARS facility has been transferred to Mexico. It is believed extremely valuable to have two groups of scientists working at different locations on screwworm research.

The specific types of research believed necessary to adequately support the APHIS Eradication Program are listed below in order of priority:

1. Ecological Research in Mexico in preparation of the eradication program. The problems involve geographical and climatic differences of great magnitude with the resulting possibility that there are isolated strains of screwworms present in various areas of Mexico. This problem was neither anticipated nor found in the previous eradication programs where the geographical and climatic conditions were relatively uniform throughout the treated area.
2. Laboratory Support in Mexico for the field research, with emphasis on developing the required strains of flies needed by APHIS for the eradication program, continuing surveillance of quality control technologies, developing of population reduction methods which could be used either prior to or simultaneously with the release of sterile flies, and developing of larval media which would be less expensive than currently utilized media.
3. Research in the area of genetics to be conducted in the U.S. Genetic studies on the screwworm were initiated in 1960 and continued for three years. All of the genetic stocks were then destroyed because the scientist was transferred from Mission to Fargo, and it was generally assumed that the screwworm would be rapidly eradicated and there would be no need for this type of research. Furthermore, rearing of the screwworm fly at Fargo, North Dakota, was not allowed. However, it is obvious that research on the screwworm will be required for many more years and genetic research can be an important part of the long-term success of the eradication efforts. Specifically, the development of an all-male strain based on genetic research would dramatically reduce the cost of the screwworm eradication program. Development of genetic markers would be extremely useful in field ecological and population surveys. A development of alternative genetic methods (different from the sterile male technique) such as compound chromosomes, genetic incompatibility, etc., could result in alternative methods of suppression or eradication of the screwworm.
4. Physiology and Biochemistry Research on the Screwworm Fly with emphasis on such topics as feeding, ovipositional, and mating attractants, hormonal control of various

functions, influence of climatic conditions on physiology, increased research on isozymes (as related to genetics) etc.

5. It was repeatedly emphasized that the successful development of new control or eradication technology would be immediately put into use by APHIS. This ideal circumstance rarely occurs and offers tremendous advantages in rapid utilization of new and novel technologies; new research discoveries can be immediately put to practical use.

APPENDIX

R. C. Fish
Deputy Assistant Administrator
Livestock & Veterinary Sciences
National Program Staff, ARS, USDA
Washington, D.C. 20250

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E. J. Thacker
Director, Animal Metabolism -
Agricultural Chemicals
P.O. Box 5674
State University Station
Fargo, North Dakota 58102

REFERENCE SLIP

TO

1/11/77

Mr. Ed Taylor

Weslaco, Tx.

☐

ACTION

☐

NOTE AND RETURN

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APPROVAL

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PER PHONE CALL

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AS REQUESTED

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RECOMMENDATION

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FOR COMMENT

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SEE ME

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NOTE AND FILE

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YOUR SIGNATURE

REMARKS

You may be
interested in this
support from
Idaho Wool Growers

RECEIVED

JAN 13 1977

AREA OFFICE
WESLACO, TEXAS

FROM

C R Swanson

1/11/77

REFERENCE SLIP

Mr. C. Taylor
Worcester, St.

- | | |
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| ☐ NOTE AND RETURN | ☐ RETURN |
| ☐ FOR FURTHER CALL | ☐ ADDRESS |
| ☐ RECOMMENDATION | ☐ AS REQUESTED |
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For more be
interested in this
supply from
Johns Wood Brown

RECEIVED

JAN 20 1977

TELETYPE

WESTERN UNION

OK

U.S. DEPARTMENT OF AGRICULTURE

DATE

REFERENCE SLIP

1/7/77

TO

Charles Swanson

CMS

Program Analysis Officer, SR

- | | |
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| ☐ ACTION | ☐ NOTE AND RETURN |
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| ☐ INITIALS | ☐ SEE ME |
| ☐ NOTE AND FILE | ☐ YOUR SIGNATURE |

REMARKS

I gave this information to
Dr. H C Cox. He suggested I send
a copy to you because it refers to
screwworm and scrapies.

FROM

Donald A. Price

REFERENCE SLIP

44-38861-1000

DATE: 10/10/68

FOR THE DIRECTOR, FBI

- | | |
|---|--|
| ☐ NOTED | ☐ ACTION |
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| ☐ SEE ME | ☐ OUTSIDE |
| ☐ YOUR SIGNATURE | ☐ NAME AND TITLE |

RE: [illegible] information to

Mr. [illegible] suggested I send

a copy to you because it refers to

document and articles.

James R. [illegible]

Acting Area Director

IDAHO WOOL GROWERS ASSOCIATION

1976 RESOLUTIONS

1. The Idaho Wool Growers Assn. favors the continued orderly development of desert lands, but recommend that water for this development come from new additional upstream or offstream storage and not from summer flows.

2. Be it resolved that the Idaho Wool Growers Assn. urge the nomination of Governor Cecil D. Andrus of Idaho as Secretary of Interior of the United States.

3 Be it resolved that the Idaho Wool Growers Assn. supports further development of the Northwest College of Veterinary Medicine, and that the 1977 Idaho Legislature and Governor Andrus provide adequate funding to fully implement their program.

4. Be it resolved that the Idaho Wool Growers Assn. supports the further development of the Northwest College of Veterinary Medicine and urges USDA and ARS provide additional funding to implement cooperative research on diseases of sheep, specifically lamb scours, coccidiosis, thin ewe syndrome and internal parasitism including liver fluke disease through the U.S. Sheep Experiment Station, Dubois, Idaho, and the Pioneering Research Laboratory, Pullman, Washington.

5. The number of sheep in Idaho is continuing to decrease and the predator control problem and sheep disease problems are increasing; therefore be it resolved that the Idaho Wool Growers Assn. recommend a change in the law whereby the maximum sheep assessment for predatory animals and sheep disease control be changed from a maximum of 30¢ per head to a maximum not to exceed 40¢ per head of sheep.

6. With the increasing amount of international commerce in animals and animal products, it is important that the United States participate in the activities of the International Office of Epizootics. The Idaho Wool Growers Assn. requests that the State Department take the necessary steps to secure membership for the United States in the International Office of Epi-

zootics. (This is an office to study diseases attacking many animals in a region at the same time).

7. The Idaho Wool Growers Assn. commends the Animal Research Service of the U.S. Department of Agriculture for its discoveries through research on sarcosporidiosis (muscle parasite) which could lead to the control of the disease.

8. The Idaho Wool Growers Association strongly urges more research be undertaken by the U.S. Department of Agriculture, state and private universities and colleges and research laboratories for control of the following diseases: parasites, foot rot, respiratory diseases, epididymitis, caseous lymphadenitis and sarcosporidiosis, mastitis, blue tongue and polyarthritis.

9. The accelerated animal control program funded last year by the Department of Agriculture and Interior at presidential request were effective in reducing livestock losses to coyotes. We urge continued and regular funding for such a program in the absence of less expensive alternatives.

10. We genuinely appreciate the continued professional conscientious support of the staff and operating personnel of the animal damage control division of the U.S. Fish & Wildlife Service.

11. We continue to support the fine research efforts of the U.S. Fish & Wildlife Service, the U.S. Department of Agriculture and particularly the Dubois Sheep Experiment Station.

12. Request entomology division of U.S. Dept. of Agriculture's Animal Research Service to come up with research to control the black fly (gnats) which is causing considerable loss to livestock owners, wildlife and curtailing recreational activities.

13. Continue funding of the scrapie program at Mission, Texas.

14. United States Dept. of Agriculture to develop a multivalent vaccine incorporating the known virus strains which are the causative agent of blue tongue.

15. U.S. Dept. of Agr. to continue to monitor outbreaks of screw

worm infestations and take action to control outbreaks when and where they occur.

16. Request U.S. Dept. of Agriculture to fund the Fleming Key Animal Import Center.

17. Request close cooperation of the animal and plant health inspection service, the Food and Drug Administration and the Environmental Protection Agency in the establishment of safe and acceptable and action levels of any residues that may be found in meat derived from lamb and mutton.

18. Research to finally determine the environmental and economic values of Compound 1080 should proceed immediately.

19. Compliment the University of Idaho and Dr. Lee Sharp for instituting the Internship Training Program, and we hope that it will continue.

20. We strongly urge the Bureau of Land Management and the Forest Service to control the noxious and poisonous plants on public lands. Their programs in the past have been totally unsatisfactory. We urge that they consider doing their own work rather than fund the county weed bureaus.

21. We urge the Bureau of Land Management to carry out a strong appeal of the decision by Judge Ritchie that stopped the gathering of wild horses on the Challis unit.

22. We commend the National Wool Growers for their stand on the Organic Act. We feel that this action helped lead to the final passage of this act.

23. Recommend that the Idaho Wool Growers Association remain in the Public Lands Council. This would entail a special assessment of all federal range users.

24. Be it resolved that proposed threatened and/or endangered status for plant species in the United States not be made without full and careful study.

Many of the plants presently considered for threatened or endangered status occur on range lands of the west that are crucial and important to the livestock industry as

well as many kinds of big game animals.

Careful study should include (1) Genetic relationships with other plant species. (2) Habitat requirements and (3) Basis for designating as a species.

It is well known that many plant species frequently cross with other related species. The loss of these crosses do not necessarily mean a loss of genetic material.

Habitats for certain plant species are so restricted that the plant species occurs infrequently. Scarcity of a plant species under these circumstances should not constitute a basis for inclusion on the list of endangered plants.

In the semi-arid and arid portions of the U.S. precipitation and temperatures vary so widely over time that conditions for germination, growth and reproduction occurs sporadically through time. Thorough investigation of the environmental conditions required for the species to grow should precede any assignment of threatened or endangered status.

Assignment of specific status to a plant based on small morphological differences is insufficient for this ranking. Cytogenetic studies should be used to establish specific status.

25. Be it resolved that the Idaho Wool Growers recommend to county and district fair livestock committees that performance records be acceptable and compatible with the trends of industry and that these said records be given greater emphasis in 4-H and FFA youth lamb and sheep projects, and that these records be made available to judges to further enable them to make more accurate evaluations of animals exhibited in community, county, district, state and interstate livestock shows.

26. Be it resolved that the promotion of lamb be significantly increased around a potential expanding market of inner America through the efforts of the American Sheep Producers Council, Inc.

27. Be it resolved the Idaho Wool Growers support the American Sheep Producers Council blueprint for expansion and hope the increased profits will enable the industry to expand.

28. Urge the Bureau of Land Management to carry out a strong appeal of the decision by Judge Ritchie that stopped the gathering of wild horses on the Challis, Idaho, unit land management.

29. We support state legislation to provide professional management and protection for the bobcat, so long as adequate safeguards for the protection of domestic livestock from predation are assured.

30. We ask the State Fish and Game Department and the U.S. Forest Service to cooperate and communicate with livestock owners in determining release sites for transplanted bears.

31. We ask the officers and staff of Idaho Wool Growers to explore development and passage of legislation which would provide permanent tattoo identification of dogs and a strengthened legal position for owners of domestic livestock injured by dogs.

32. COMMENDATIONS:

The Idaho Wool Growers would especially like to express their deep appreciation and gratitude to Executive Secretary Ed Marsh who has given so much for so long in a tireless effort to better our industry. We certainly commend his great effort.

33. APPRECIATION:

To U. of I. Extension & Research for their support in marketing, animal health, nutrition, breeding, range improvement and other fields of endeavor important to Idaho Wool Growers.

To U.S.D.A and Ron Boyd for market news reports. To Federal Crop and Livestock Reporting Service for keeping us current on supply and movement of meats and livestock.

To the Rocky Mountain Sheep Marketing Association and P.N.W. Marketing association for their aid in marketing our sheep and lambs.

To State Dept. of Agriculture for their cooperation in administering laws pertaining to use of pesticides, insecticides and rodenticides.

For cooperation of all those who have donated gifts and door prizes for the convention.

To Mr. and Mrs. Rick Peterson, and Ray Wood for their help in

arranging for the convention in Idaho Falls.

To Westbank Motel and Coffee Shop, Mayor Eddie Pederson, and city of Idaho Falls for their warm welcome and cooperation.

PRESIDENT'S ADDRESS

The sheepman's struggle has always been complicated by a changing society. We need room, and in turn, we utilize much forage unavailable to other domestic livestock. Urban expansion creates pressures that eventually may dismember a sound and well managed sheep operation. My admonishment would be, do not totally resist change. Work with it to preserve and expand your business.

There is no occupation that is not fraught with the necessity of some change. We have often heard it said in this profession, "I'm short of good sheepherders, the predators are destroying my lamb crop, the Forest Service wants me to quit trailing and truck sheep, and the Bureau of Land Management wants me to enter into a rest rotation program; so it appears I shall be forced to purchase additional range. To survive all of this runs into more expense, so I guess I'll just liquidate and rest rotate myself into retirement."

None of us singly have all the answers, but if you really want to resolve some of these complications and frustrations you can. A recent passage I heard covers the whole subject, "Everything cometh to him who waiteth, if he works like hell while he waiteth." or "Luck to those who jumpeth over the ditch so long as they jumpeth well."

I would like to expand upon this beginning by sharing with you my optimism for the future and outline a review of the events and actions occurring this past year which may affect our prosperity.

President Ernest Hartung opened this fall's Agricultural Consulting Council meeting at the University of Idaho with some very apropos remarks regarding the future of agriculture. His very strong feelings were, and I concur, that until all segments of agriculture merge their interests and strength on a united front they will continue to

Continued on Page 6

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE
NATIONAL PROGRAM STAFF

Beltsville, Maryland 20705

February 8, 1977

Subject: Proposed Visit by Mr. Phil Cobb to your Laboratories

To: R. L. Harris, College Station, TX
J. W. Snow, Mission, TX
R. O. Drummond, Kerrville, TX

Mr. Phil Cobb, who is part of the team in Tanga, Tanzania, working on the development of the sterile male technique for tsetse fly control, will be on home leave during March and part of April 1977. I have arranged for Mr. Cobb to be on official duty for approximately one week during this time for the purpose of visiting the Livestock Insects Laboratories at College Station, Mission, and Kerrville. The time of this visit is not definite, but probably will be the week of March 14. As soon as a more definite time is known, you will be notified.

Mr. Cobb was employed by the State of Florida by an ARS Cooperative Agreement to work on the cabbage looper sterile male program on St. George's Island. Subsequently, he earned a Master's Degree at some north central university (can't remember which one). About two years ago, he was employed by ARS on a PASA agreement to work on the tsetse fly program. His primary interest and training is in the area of ecology. Upon completion of his duties in Tanzania, Mr. Cobb would like to continue with ARS. However, he has no tenure at the present time. I feel very strongly that we should make every effort to retain Mr. Cobb within ARS and hopefully within the Insects Affecting Man and Animal group. The reason for his reviewing the three laboratories is for him to get an idea of the type of research being conducted and for each of you and your respective staffs to get to know him.

MA 2-8-77
D. A. Lindquist
Staff Scientist
Livestock & Veterinary Sciences

cc:
P. Cobb
E. A. Taylor ✓
J. R. Johnston

RECEIVED

FEB 14 1977

AREA OFFICE
WESLACO, TEXAS

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE
NATIONAL PROGRAM STAFF

Beltsville, Maryland 20705 February 9, 1977

✓ EAT *at*
✓ WFS *WH*

Subject: Proposed Visit by Drs. Tony Jordan and Peter Langley
to the ARS and APHIS Screwworm Facilities, Mission,
Texas

To: J. W. Snow
Research Leader
Screwworm Research Laboratory
P.O. Box 986
Mission, Texas 78572

The two scientists named above will be involved in a tsetse and trypanosomiasis training course to be held in College Station, Texas, about the first week in May 1977. (You will learn more of this training course shortly.) I have strongly recommended that Drs. Jordan and Langley visit the Screwworm facilities at Mission, Texas, following the training course. I hope that you can make the appropriate arrangements for them to review both the research and action programs. If convenient, I suggest you drive Drs. Jordan and Langley from College Station to Mission.

D. A. Lindquist

D. A. Lindquist
Staff Scientist
Livestock & Veterinary Sciences

cc:

A. M. Jordan

E. A. Taylor ✓

RECEIVED

FEB 14 1977

AREA OFFICE
MISLACQ, TEXAS

WTS
EAT

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE
NATIONAL PROGRAM STAFF
Beltsville, Maryland 20705 February 9, 1977

Subject: Proposed Visit by Drs. Tony Jordan and Peter Langley
to the ARS and ARHS Screwworm Facilities, Mission,
Texas

To: J. W. Snow
Research Leader
Screwworm Research Laboratory
P.O. Box 986
Mission, Texas 78572

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trypanosomiasis training course to be held in College Station,
Texas, about the first week in May 1977. (You will learn more
of this training course shortly.) I have strongly recommended that
Drs. Jordan and Langley visit the Screwworm facilities at Mission,
Texas, following the training course. I hope that you can make
the appropriate arrangements for them to review both the research
and action programs. If convenient, I suggest you drive Drs. Jordan
and Langley from College Station to Mission.

D. A. Lindquist

D. A. Lindquist
Staff Scientist
Livestock & Veterinary Sciences

cc:
A. M. Jordan
H. A. Taylor

RECEIVED

FEB 14 1977

AREA OFFICE
EL PASO, TEXAS

✓ EAT
✓ WFS

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE
METABOLISM AND RADIATION RESEARCH LABORATORY
STATE UNIVERSITY STATION
FARGO, NORTH DAKOTA 58102

February 24, 1977

Subject: Morphological Variation of Antennal Olfactory Structures in
Adult Male Screwworms of Different Strains

To: Dr. J. Wendell Snow
Screwworm Research Laboratory,
ARS, USDA
Mission, TX 78572

Recent studies by North Dakota State University professor, Dr. Robert Puyear, and myself (using scanning electron microscopy - SEM), has revealed differences in the shape and location of the male antennal olfactory structures between the 009 and TT5 strains of screwworms (see attached photographs). The differences appear in the location and shape of the ventral-proximal olfactory pits of the antennae. Males of the 009 strain have 8 individual pits filled with olfactory sensilla, whereas males of the TT5 strain have a "slit" containing olfactory sensilla. The morphological differences in the two strains can be resolved at magnifications of less than 100 x by using SEM.

This information may be considered a preliminary finding, but Dr. Puyear has looked at a number of individuals from each strain, and the characteristics described were distinguishable on all the flies of the two strains.

Strain differences indicate additional studies are warranted. We would like to examine native flies collected from various locations and a number of ARS-colonized strains. The findings could provide invaluable information to the eradication program, such as structural variability versus location of collected specimens, strain development for APHIS production and release; identification of native and released strains, migration studies, variations in laboratory strains, and the genetics of phenotypic expression. MRRL is now actively involved in screwworm attractants research with Dr. Adams, Mr. Pomonis, and myself. The significance of morphological variability of olfactory sensory systems, as it relates to behavior bioassay of sex recognitions, mating, general feeding, and ovipositional attractants, will no doubt be a future concern.

Dr. Puyear and I would like to continue this work in conjunction with other cooperative studies of the basic morphology of sensory structures of the screwworm. We will have the screwworm colony until April 15 and will terminate on-sight rearing at that time.

RECEIVED

MAR 1 1977

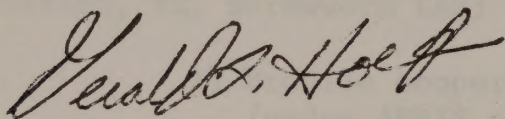
AREA OFFICE
WESLACO, TEXAS

Dr. J. Wendell Snow

page 2

February 24, 1977

I hope that a one-year cooperative feasibility study with your laboratory, MRRL, and Dr. Puyear (through NDSU) could be initiated in June 1977. Funding of \$6,000.00 would be required. Dr. Puyear currently has a nine-month appointment with NDSU and is available full time during the summer and part time during the school year. I have contacted Dr. Harold Brown of your location, and he has expressed a willingness to cooperate on this study. I am convinced that this research would be worthwhile to the screwworm program, and I would hope to gain your support and assistance in the establishment of a cooperative program.



Gerald G. Holt, Research Biologist
Insect Physiology Unit
Screwworm Research,
Insect Physiology and Metabolism Section

cc: L. E. LaChance, Acting Director, MRRL
D. R. Nelson, Research Leader, MRRL
Insect Physiology & Metabolism Section
C. Hoffman, Entomologist-In-Charge
APHIS Screwworm Eradication Program
Mission, TX 78572
R. Puyear, Department of Zoology, NDSU
D. Lindquist, NPS, Agric. Res. Ctr, West
Beltsville, MD 20705
W. Klassen, NPS, Agric. Res. Ctr., West
Beltsville, MD 20705
C. H. Schmidt, Director, Dakotas, Alaska Area
E. Taylor, Director, Subtropical Tx Area,
Weslaco, TX 78596

PROPOSED COOPERATIVE PROGRAM

Title: Investigations of Morphological Variations of Screwworms, Using Scanning Electron Microscope Techniques

Participants: Dr. Wendell Snow, ARS, Screwworm Research Laboratory, Mission, TX
Dr. Harold Brown, " " " " "
Dr. Robert Puyear, Dept. of Zoology, North Dakota State Univ., Fargo
G. G. Holt, ARS, MRRL, Fargo, ND 58102

Proposed Study: Investigate the primary external sensory structures (antennae) of adult screwworms to determine whether morphological variability exists between and among colonized strains and native insects collected from different geographical locations.

Duties and Responsibilities:

ARS - Mission, TX, Screwworm Lab:

- 1) Provide cooperator to collect, rear, and ship specimens (under APHIS permit #6797, VS Form 16-17)
- 2) Advise on strains to be studied
- 3) Determine specific geographic location of specimens of native insects to be studied
- 4) Construct insect strains for production and release

ARS, MRRL, FARGO:

- 1) Receive, hold, and secure shipped specimens
- 2) Provide chemicals for specimen preparations
- 3) Film processing and printing
- 4) Collection and analyses of data
- 5) Administration of funding and payment to NDSU under cooperative agreement

NDSU, Fargo:

- 1) Provide SEM and operator
- 2) Provide instrumentation associated with sample preparations (freeze-dryer, sputter coater, mounting stubs, etc.)
- 3) Consultation on data interpretation.

Funding: \$6,000.00 to NDSU for operator salary, beam time, and materials.

FIGURE LEGENDS
FOR
SCANNING ELECTRON MICROGRAPHS
OF ADULT SCREWORMS

- Fig. 1-2 Ventral view of 009 strain of male screwworm antennae. Note individual olfactory pits.
- Fig. 3-4 Ventral view of TT5 strain of male screwworm antennae. Note olfactory slit.

Fig 1

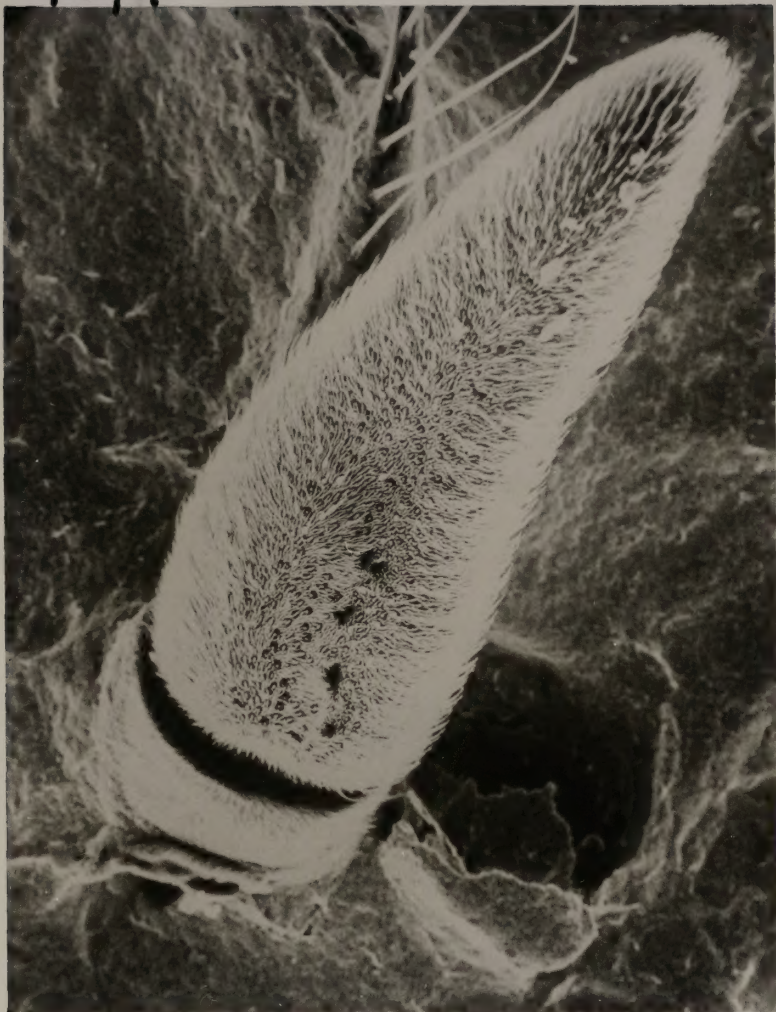


Fig 2



Fig 3

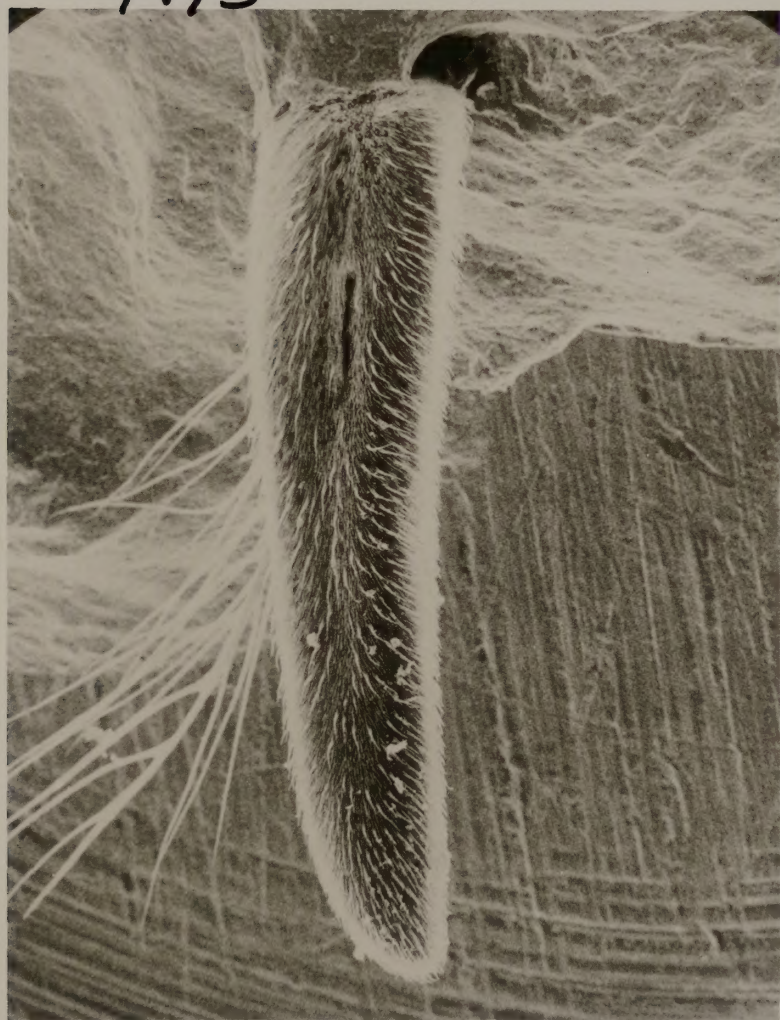
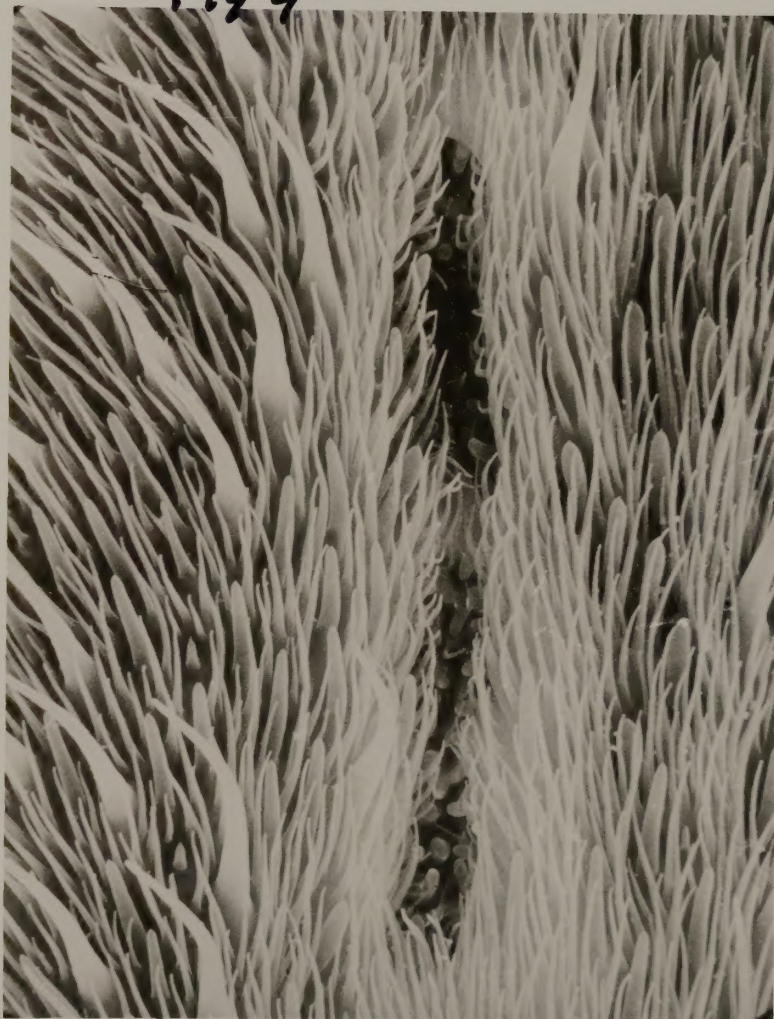


Fig 4



U.S. DEPARTMENT OF AGRICULTURE

Memorandum

ANIMAL AND PLANT HEALTH INSPECTION SERVICE

Veterinary Services
Washington, DC 20250

✓ EAT *EAT*
✓ WFS *WFS*

SUBJECT: Technical Screwworm Work Conference

TO : E. A. Taylor
Area Director, Southern Region
Weslaco, TX 78596

DATE: AUG 19 1977

You are cordially invited to attend the next Technical Screwworm Work Conference that is scheduled to be held at Mission, Texas, on September 21, 1977, at 9 a.m. The agenda will cover, as in past conferences, the technical phases of the program and a review of progress to date.

P. A. Chaloux
Pierre A. Chaloux
Deputy Administrator
Veterinary Services

EAT attended

RECEIVED

AUG 22 1977

AREA OFFICE
WESLACO, TEXAS

U.S. DEPARTMENT OF AGRICULTURE

SPEED-MEMO

PART NUMBER

DATE

TO J. Wendell Snow
Location Leader
Mission, Texas

1

August 25, 1977

SUBJECT

FROM Camile L. LaCombe
Realty Officer
New Orleans, Louisiana

Lease No. 12-14-7001-1164 - One Storage
Building, Moore Air Base, Hidalgo, Texas

MESSAGE (WRITE CONCISE MESSAGE. SIGN AND FORWARD PARTS 1 AND 2 TO ADDRESSEE. RETAIN PART 3)

Enclosed are two copies of the above-mentioned lease. Please forward the signed copy to the lessor, Mr. Clark Spikes, Jr., Drawer 393, Mission, Texas, and retain the conformed copy for your station file.

✓ EAT *[Signature]*
✓ WFS *[Signature]*

2 Enclosures

cc:

E. A. Taylor, Area Director, Weslaco, TX

Finance - Accounting Data: FY 77 - 701-7204-20480
FY 78 - 801-7204-20480

RECEIVED

AUG 30 1977

AREA OFFICE
WESLACO, TEXAS

SIGNATURE

REPLY (USE THIS SPACE FOR REPLY. SIGN AND DATE. RETURN PART 2 TO SENDER. RETAIN PART 1)

SIGNATURE

DATE

U.S. Government
Lease for Real Property (Short Form)

L E A S E

DATE

NO.

August 25, 1977 12-14-7001-1161

The LESSOR leases to the UNITED STATES OF AMERICA, hereinafter called the GOVERNMENT, the described premises on the terms stated herein, including the conditions on the reverse hereof.

1. LOCATION OF LEASED PREMISES

Moore Air Base, Hidalgo, Texas

2. DESCRIPTION OF LEASED PREMISES

One 25' x 125' storage building (No. S-525)

3. TERM. To have and to hold:

For the term beginning August 1, 1977, through September 30, 1978,
From year to year thereafter, but not beyond September 30, 1980, this lease
may be renewed at the option of the Government by giving 30 days advance notice in
writing to the lessor; renewals to be on the same terms and conditions as the
present lease.

4. TERMINATION. ~~Either party~~ The Government may terminate this lease at any time by giving at least 30 days' written notice
to the Lessor. Said notice shall be computed commencing with the day after the date of mailing.

5. RENTAL. The Government shall pay the Lessor annual rent of \$ 600.00 at the rate of \$ 50.00
per month, in arrears. Rent for a lesser period shall be prorated. Rent checks shall be made payable to:

Mr. Clark Spikes, Jr.
Drawer 393
Mission, Texas 78572

6. SERVICES AND UTILITIES (Enter "X" in box for each item to be provided by Lessor as part of lease)

- | | | |
|--|---|---|
| ☐ (1) HEAT | ☐ (5) CHILLED DRINKING WATER | ☐ (9) TOILET SUPPLIES |
| ☐ (2) ELECTRICITY | ☐ (6) AIR CONDITIONING | ☐ (10) JANITOR SERVICE AND SUPPLIES (Frequency) |
| ☐ (3) POWER (Special equipment) | ☐ (7) ELEVATOR SERVICE | ☐ (11) INITIAL LAMPS, TUBES, BALLASTS AND REPLACEMENTS |
| ☐ (4) WATER (Hot and cold) | ☐ (8) WINDOW WASHING (Quarterly) | ☐ (12) MECHANICAL VENTILATION |
| ☐ (13) OTHER (Specify) | | |

7. SPECIAL OR OTHER PROVISION(S) AGREED UPON

Government shall be responsible for the maintenance of the grounds surrounding the building.

PAYMENT IS TO BE MADE AUTOMATICALLY MONTHLY.

Camille L. LaCombe
Camille L. LaCombe, Realty Officer
USDA, ARS, SPAO, New Orleans, Louisiana

LESSOR

BY /s/ Clark Spikes
(Signature)

(Signature)

UNITED STATES OF AMERICA, USDA, Agricultural Research Service, Southern Regional
Admin. Service Office, P. O. Box 3326, 701 Loyola Ave., New Orleans, LA 70153

BY Camille L. LaCombe
(Signature) Camille L. LaCombe

(Official title)

GENERAL PROVISIONS

9. FACILITIES NONDISCRIMINATION

(a) As used in this section, the term "facility" means stores, shops, restaurants, cafeterias, restrooms, and any other facility of a public nature in the building in which the space covered by this lease is located.

(b) The Lessor agrees that he will not discriminate by segregation or otherwise against any person or persons because of race, creed, color, or national origin in furnishing, or by refusing to furnish, to such person or persons the use of any facility, including any and all services, privileges, accommodations, and activities provided thereby. Nothing herein shall require the furnishing to the general public of the use of any facility customarily furnished by the Lessor solely to tenants, their employees, customers, patients, clients, guests and invitees.

(c) It is agreed that the Lessor's noncompliance with the provisions of this section shall constitute a material breach of this lease. In the event of such noncompliance, the Government may take appropriate action to enforce compliance, may terminate this lease, or may pursue such other remedies as may be provided by law. In the event of termination, the Lessor shall be liable for all excess costs of the Government in acquiring substitute space, including but not limited to the cost of moving to such space. Substitute space shall be obtained in as close proximity to the Lessor's building as is feasible and moving costs will be limited to the actual expenses thereof as incurred.

(d) It is further agreed that from and after the date hereof the Lessor will, at such time as any agreement is to be entered into or a concession is to be permitted to operate, include or require the inclusion of the foregoing provisions of this section in every such agreement or concession pursuant to which any person other than the Lessor operates or has the right to operate any facility. Nothing herein contained, however, shall be deemed to require the Lessor to include or require the inclusion of the foregoing provisions of this section in any existing agreement or concession arrangements or one in which the contracting party other than the Lessor has the unilateral right to renew or extend the agreement or arrangement, until the expiration of the existing agreement or arrangement and the unilateral right to renew or extend. The Lessor also agrees that it will take any and all lawful actions as expeditiously as possible, with respect to any such agreement as the contracting agency may direct, as a means of enforcing the intent of this section, including, but not limited to, termination of the agreement or concession and institution of court action.

10. EXAMINATION OF RECORDS

(NOTE: This provision is applicable if this lease was negotiated without advertising.)

a. The Lessor agrees that the Comptroller General of the United States or any of his duly authorized representatives shall, until the expiration of 3 years after final payment under this lease, have access to and the right to examine any directly pertinent books, documents, papers, and records of the Lessor further agrees to include in all his subcontracts

b. The Lessor further agrees to include in all his subcontracts provisions related to this lease.

11. INSTRUCTIONS

Whenever the lease is executed by an attorney, agent, or other person, or corporation on behalf of the Lessor, the name of the Lessor shall appear above the signature of the person signing.

1. MAINTENANCE OF PREMISES

The Lessor shall maintain the premises and property furnished under this lease in good repair and tenable condition during the continuance of this lease, except in case of damage arising from the act or the negligence of the Government's agents or employees. For the purpose of so maintaining said premises and property, the Lessor may, at reasonable times approved by the Government, enter and inspect the same and make any necessary repairs thereto.

2. DAMAGE BY FIRE OR OTHER CASUALTY

If the said premises be destroyed by fire or other casualty this lease shall immediately terminate. In case of partial destruction or damage, so as to render the premises untenable, as determined by the Government, the Government may terminate the lease by giving written notice to the Lessor within fifteen (15) days thereafter; if so terminated no rent shall accrue to the Lessor after such partial destruction or damage; and if not so terminated the rent shall be reduced proportionately by supplemental agreement hereto effective from the date of such partial destruction or damage.

3. ALTERATIONS

The Government may make alterations, attach fixtures or signs and erect structures in or upon the leased premises, all of which shall be the property of the Government.

4. CONDITION REPORT

A joint physical survey and inspection report of the demised premises shall be made as of the effective date of this lease, reflecting the then present condition, and will be signed on behalf of the parties hereto.

5. OFFICIALS NOT TO BENEFIT

No Member of or Delegate to Congress, or Resident Commissioner shall be admitted to any share or part of this lease contract, or to any benefit that may arise therefrom; but this provision shall not be construed to extend to this lease contract if made with a corporation for its general benefit.

6. APPLICABLE CODES AND ORDINANCES

The Lessor, as part of the rental consideration, agrees to comply with all codes and ordinances applicable to the ownership and operation of the building in which the leased space is situated and, at his own expense, to obtain all necessary permits and related items.

7. LESSOR'S SUCCESSORS

The terms and provisions of this lease and the conditions herein shall bind the Lessor, and the Lessor's heirs, executors, administrators, successors, and assigns.

8. COVENANT AGAINST CONTINGENT FEES

The Lessor warrants that no person or selling agency has been employed or retained to solicit or secure this lease upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by the Lessor for the purpose of securing business. For breach or violation of this warranty the Government shall have the right to annul this lease without liability or in its discretion to deduct from the rental price or consideration, or otherwise recover, the full amount of such commission, percentage, brokerage or contingent fee. (Licensed real estate agents or brokers having listings on property for rent, in accordance with general business practice, and who have not obtained such licenses for the sole purpose of effecting this lease, may be considered as bona fide employees or agencies within the exception contained in this clause.)

UNITED STATES DEPARTMENT OF AGRICULTURE
SCIENCE AND EDUCATION ADMINISTRATION

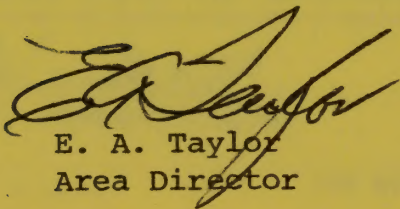
FEDERAL RESEARCH
SOUTHERN REGION
SUBTROPICAL TEXAS AREA
P.O. BOX 267
WESLACO, TEXAS 78596

April 5, 1978

Subject: Participation in the USDA/CDA Workshop on
Problems of Livestock Pest Control,
in Lethbridge, Alberta, Canada,
on May 2-3, 1978

To: J. W. Snow, RL
Screwworm Research
Mission

I have discussed your participation in the above workshop, as a rapporteur for one of the designated sections, with D. A. Lindquist. He and T. B. Kinney, Jr. have suggested that your name be withdrawn from proposed participants due to your research activities and other travel. Both Lindquist and Kinney agree that your travel schedule of the Executive Development in April, planned travel into Central America in June, and the possible trip to Australia during the fall is indeed a very busy schedule. Therefore, your other travel and research activities would have priority over the attendance of the above meeting in Canada.



E. A. Taylor
Area Director

cc:
D. A. Lindquist
A. W. Cooper

SEA:FR:SR:STA:EATaylor:bo:4/5/78

29 March 78

TO

Ed Taylor

RECEIVED

MAR 31 1966

AREA OFFICE
☒ ACTION ☐ NOTE AND RETURN
WISLACO, TEXAS

☒ APPROVAL ☐ PER PHONE CALL☐ AS REQUESTED ☐ RECOMMENDATION

☐ FOR COMMENT ☐ REPLY FOR SIGNATURE OF _____

☐ FOR INFORMATION ☐ RETURNED

☐ INITIALS ☐ SEE ME☐ NOTE AND FILE ☐ YOUR SIGNATURE

REMARKS Attached are several sheets of information about a joint meeting with Canadian entomologists. I would like to attend if possible because I believe it will be a useful meeting. If you agree, then I need to determine how the approval will be handled.

FROM

J. Wendell Snow

GPO c48-16-83471-1

FORM AD-514 (8-64)

ology Section

of March 9 and the attachments. I agree with the
it will adequately cover the major problems which

ed changes in the moderators and rapporteurs
(see attachment). If you do not agree with
to change them.

ervations, we currently anticipate that eight
the meeting. Therefore, I believe that reserva-
rooms should be made, unless some of the rooms
we can double up.

inner would certainly be an opportunity for more suggest you proceed with the arrangements for the

forward to this meeting and the increased cooperation

Sciences

Enclosure

SEA:FR:NPS:LVS:DALindquist:jbh:3/23/78

RECEIVED MAR 27 1978

March 23, 1978

RECEIVED MAR 27 1978

Dr. W. O. Haufe
Veterinary-Medical Entomology Section
Research Station
Agriculture Canada
Lethbridge, Alberta
CANADA

Dear Dr. Haufe:

I received your letter of March 9 and the attachments. I agree with the agenda and believe that it will adequately cover the major problems which we should discuss.

I have made some suggested changes in the moderators and rapporteurs for the various sessions (see attachment). If you do not agree with these, please feel free to change them.

With regard to room reservations, we currently anticipate that eight scientists will attend the meeting. Therefore, I believe that reservations for eight single rooms should be made, unless some of the rooms have twin beds so that we can double up.

A social evening with dinner would certainly be an opportunity for more informal discussions; I suggest you proceed with the arrangements for the night of May 2.

I am very much looking forward to this meeting and the increased cooperation which will result.

Sincerely,

D. A. Lindquist
Staff Scientist
Livestock and Veterinary Sciences

Enclosure

SEA:FR:NPS:LVS:DALindquist:jbh:3/23/78

Revised

<u>Session</u>	<u>Moderator</u>	<u>Rapporteur</u>
1.1	Haufe	Berry
1.2	Khan	Drummond
1.3	Shemanchuk	Kunz
1.4	LaBrecque	Depner
1.5	Harris	Haufe
1.6	Weintraub	Drummond
1.7	Nelson	Baron
1.8	Weidhaas	Snow
2	Prentice	Lindquist
3	Lindquist	Pigden

Research Branch

Your file Votre référence

(V.-M.)

Our file Notre référence 09.52.00

Dr. D. A. Lindquist
Livestock and Veterinary Sciences
Agricultural Research Service
U. S. Department of Agriculture
Beltsville Agricultural Research Center
BELTSVILLE, Maryland 20705
U. S. A.

March 9, 1978

Dear Dr. Lindquist

I am enclosing a tentative agenda in which time in the meeting is apportioned to designated subject areas for the discussion of problems in animal protection. I would appreciate any comments you may have in adjusting either the schedule or the scope of the discussion topics.

I believe that I mentioned the sharing of the duty of moderating discussion among selected members of the group. Would it be useful to designate a rapporteur to work with each moderator to take note of the significant results of the discussions for the final 'wrap-up' of our meeting? If you agree, we can consider the suggestions that I have indicated for some subject areas with others from your group.

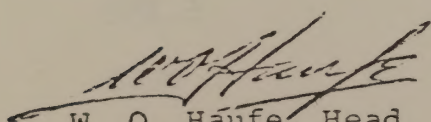
I have asked R. M. Prentice, one of our coordinators in Ottawa to moderate one of the final sessions on the afternoon of May 3 to deal with priorities and future direction in R & D. I would appreciate it if you would agree to moderate the one on areas of cooperation for mutual benefit in the U.S.D.A. and C.D.A. In this connection, I have suggested to Dr. Pigden, our coordinator for livestock production, that he serve with you as rapporteur for that discussion.

I have made a reservation for a block of six single rooms at the Holiday Inn under your name for the nights of May 1, 2 and 3. If you require additional accommodation, I should revise the reservation as early as possible.

Since the Research Branch has discontinued publication of an annual report, I am enclosing copies of the Annual Program Reports for our four Lethbridge Programs for 1977. These will give you some idea of activities and objectives that are presently being emphasized in our work.

We have also been considering an evening social get-together for dinner while you are here. If this meets with the wishes of you and your colleagues, we will arrange it in advance at an appropriate place. In this event, which evening would you prefer?

Yours sincerely


W. O. Haufe, Head
Animal Parasitology Section

WOH/cs

encl

MEETING WITH STAFF SCIENTISTS OF U.S.D.A. ON

PROBLEMS OF LIVESTOCK PEST CONTROL

Agriculture Center, Lethbridge
May 2-3, 1978

AGENDA

May 2

0900 Opening Remarks and Introductions:

U.S.D.A. rep.

C.D.A. rep.

0930 I. Problems and Information Exchange

1.1 - Evaluation of animal protection in production:
Haye
Klein Economic assessments, measurements of productivity from control programs, identification of major pest problems in livestock productivity, models for economic evaluation of livestock pests.

1030-1045 Coffee Break

1045 1.2 - Future development and use of pesticides in livestock protection.
Klein
Fryer

1200-1300 Lunch

1300 1.3 - Biting flies: Environmental control, biological control, vectors of disease, etc.
Schmiedel
H. W. G.

1415 1.4 - Potential for repellents, pheromones and behavioral modifications as alternatives to toxic chemical pesticides in the environmental control of pests of man and animals.
Willson
Brown

1515-1530 Coffee Break

1530 1.5 - Filth-breeding flies.
Smith
L. B. Brown

May 3

0830 I. Problems and Information Exchange (cont'd)

1.6 - Cattle grubs and extermination programs.

W. Smith
Brown



TEXAS AGRICULTURAL EXTENSION SERVICE

THE TEXAS A&M UNIVERSITY SYSTEM

2401 East Highway 83
Weslaco, Texas 78596
May 31, 1978

ENT

Dr. M. E. Meadows
Screwworm Research Laboratory
Southwest Screwworm Eradication Program
Box 986
Mission, Texas 78572

Dear Dr. Meadows:

We wish to thank you and your staff, especially Dr. Hoffman, for the time and effort which was spent in presenting the screwworm display at the May 25, Extension and Research Field Day at the Weslaco Center. The display was well organized, and we have received many favorable comments on the excellent job which your staff did. We had approximately 400 visitors at this field day and I am sure we have gotten the message of "public awareness" across to a large number of people. This display fit well into our livestock program.

Again, thanks for a fine job.

Sincerely yours,

Jesse Cocke, Jr.

Jesse Cocke, Jr.
Area Entomologist

J. D. Selman, Jr.
J. D. Selman, Jr.
District Extension Agent

JCjr:JDSjr/al

cc: E. A. Taylor ✓
E. M. Trew
J. K. Olson
J. G. Thomas
C. C. Connolly

RECEIVED

JUN 2 1978

AREA OFFICE
WESLACO, TEXAS

RECEIVED
JUN 2 1978
AREA OFFICE
WESLACO, TEXAS

cc: E. A. Taylor
E. M. Trew
J. K. Olson
J. G. Thomas
C. C. Connolly

JCT: JDS:jva

J. D. Seiman, Jr.
District Extension Agent

Jesse Cocke, Jr.
Area Entomologist

Again, thanks for a fine job.

Sincerely yours,

our livestock program. across to a large number of people. This display fit well into and I am sure we have gotten the message of "public awareness" staff did. We had approximately 400 visitors at this field day received many favorable comments on the excellent job which your Westaco Center. The display was well organized, and we have re- display at the May 25, Extension and Research Field Day at the the time and effort which was spent in presenting the screwworm We wish to thank you and your staff, especially Dr. Hoffman, for

Dear Dr. Meadows:

Mission, Texas 78572
Box 986

Southwest Screwworm Eradication Program
Screwworm Research Laboratory
Dr. M. E. Meadows

ENT

May 31, 1978
Weslaco, Texas 78596
2401 East Highway 83



THE TEXAS A&M UNIVERSITY SYSTEM

TEXAS AGRICULTURAL EXTENSION SERVICE

UNITED STATES DEPARTMENT OF AGRICULTURE
SCIENCE AND EDUCATION ADMINISTRATION

EAT *[initials]*
WFS *[initials]*

FEDERAL RESEARCH
SOUTHERN REGION

Screwworm Research Laboratory
P. O. Box 986
Mission, Texas 78572

August 25, 1978

Subject: Central American Trip

To: E. A. Taylor, Area Director

All agricultural attaches in Central America have been contacted by Dr. Smith of APHIS about our visit between the dates of August 28 and September 20, 1978.

J. Wendell Snow
J. Wendell Snow
Location Leader

*copy to Juanita
8-28-78
B.*

RECEIVED

AUG 28 1978

AREA OFFICE
WESLACO, TEXAS

ENT VIA TELECOPIER

U.S. DEPARTMENT OF AGRICULTURE

DATE

REFERENCE SLIP

Nov. 6, 78

TO

D. A. Lindquist

Staff Scientist, Room 325

Beltsville, MD

- | | |
|--|---|
| ☐ ACTION | ☐ NOTE AND RETURN |
| ☐ APPROVAL | ☐ PER PHONE CALL |
| ☐ AS REQUESTED | ☐ RECOMMENDATION |
| ☐ FOR COMMENT | ☐ REPLY FOR SIGNATURE OF |
| ☐ FOR INFORMATION | ☐ RETURNED |
| ☐ INITIALS | ☐ SEE ME |
| ☐ NOTE AND FILE | ☐ YOUR SIGNATURE |

REMARKS

For your review and comments.

Transmittal - 2 pages

FROM

E. A. Taylor, Area Director

SOUTHERN REGION, SUBTROPICAL TEXAS AREA

P. O. Box 267, Weslaco, Texas 78596

100, 0, 75

RECEIVED

Dr. J. H. ...

State ...

Belleville, Mo.

☐ ...

☐ ...

☐ ...

☐ ...

☐ ...

☐ ...

☐ ...

For your review and comment.

Respectfully,
J. H. ...

J. H. ...
J. H. ...
J. H. ...

SEA CONTINGENCY FUND PROPOSAL, FISCAL YEAR 1979

SOUTHERN REGION

November 6, 1978

Program Code:

Proposal: Evaluation of the "Screwworm Adult Suppression System"
(SWASS) in Mexico

Origin of Research: Screwworm Research, Mission, Texas

Objective of Research: To advance the SWASS technology to a level useable
by APHIS in an operational action program.

Justification: Repeated set backs in the screwworm eradication program in the southwestern United States have shown the need for technology to complement the sterile insect release method proven successful on Curacao (1954) and in Florida. The Screwworm Adult Suppression System (SWASS) was proven successful in reducing the screwworm fly population on Curacao in 1976. Further improvements of the SWASS were tested in Texas in 1978. Sterile fly releases were unable to control a screwworm outbreak near Alpine, Texas. SWASS was activated and within days trap of native female fly catches dropped from 11.7 to 1.8 per trap and the population suppression was maintained at that level until rain forced discontinuance of the test on September 18, 1978. The test was repeated starting October 3, 1978 with similar results. Trap catches in an untreated check area were constant or increasing during this test period. This success in a 200 square mile test area proved that a new technology had been developed and that the probability for it to be extremely effective in the total eradication program is very high. The Animal and Plant Health Inspection Service is eager to integrate this technology into their eradication program. Research conducted with the funds requested is expected to

accomplish the work necessary for successful integration of the technology in the APHIS action program.

Amount Requested (net to location): FY 1979 - \$150,000

Planned Use of Funds: Research will be conducted on effects of SWASS on environment, non-target organisms and fate of insecticide and attractant chemicals. Improved formulation techniques, machinery, handling systems and safety procedures applicable to production and distribution will be researched. The proposed research will be conducted in Mission and the Mexican States of Sonora and Chiapas. The final test will be in a 2500 square mile area of Chiapas, where preliminary data on population levels and seasonal history have been collected. The test will involve various swath widths, dosage rates, sheep pens, trap operations, and extensive ground truth data. APHIS will be involved in all aspects of the test and will contribute directly by providing distribution of SWASS by air.

Duration of Test: October 30, 1978 through August, 1979

Utilization of Funds:

Equipment and Supplies

Chemicals (Swormlure)	50,000
Wax	5,000
Development of Manufactufing Equipment	10,000
Development of Release <i>Distribution</i> Equipment	10,000
Vehicle Cost and Operation in Test Area	5,000
Sheep and Feed	2,000
Miscellaneous	18,000

Personl:

Per Diem	20,000
Labor (Mexico)	30,000
Total	<u>\$150,000</u>

Animal and Plant Health Inspection Service

Equipment and Supplies

Blood	5,000
Rearing Costs	20,000
Fly Release Cost	25,000
Release <i>Animal Distribution</i> of SWASS	50,000
Vehicle Costs	5,000
Miscellaneous	10,000

Personal

Per Diem	<u>10,000</u>
Total	\$125,000
Grand Total (SEA & APHIS)	\$275,000

If approved, approximately 40 percent of all Mission funds and personnel will be directed toward this effort. Professional and support salaries will be about \$120,000, trap development and population detection \$20,000, chemicals for swormlure and bait \$20,000, residue and toxicological testing \$10,000, development

of delivery equipment \$10,000, and miscellaneous equipment and supplies \$20,000, (total - \$200,000).

Summary of Facts Provided to State of Texas for a State Permit.

Formulation of SWASS: 3 to 4 g pellets composed of about 30% sugar, 30% dried blood, 8% corn cob grits, 30% wax, 2 and 2% dichlorvos.

Application Rate: 350 pellets/square mile/week delivered in two applications. Swath widths are one mile on staggered grids.

Actual DDVP/Square Mile/Week: 18 g/square mile/week.

Proposed Utilization: Areas with screwworm outbreaks and not to exceed 6 weeks of application. ~~(Pellets will not be dropped over populated areas.)~~ All applications will be applied and maintained by federal or state employees.

Need: Heavy screwworm populations often develop in isolated areas that are beyond control by use of sterile flies. The SWASS system will reduce native populations to the level that sterile flies will be effective.

Areas of Texas Permit Requested For: All, but especially the southern and western counties.

Request Effective Date: January 1, 1979.

Expected Level of Reduction: The SWASS system has reduced native populations of screwworms by 85% in one week (data attached).

Compatibility with Sterile Flies: The systems are complimentary since wild females are killed and both types of males (released and wild) are equally killed. Sterile males are more effective in low populations. Therefore, reductions in the total population improves overall effectiveness.

Environmental Hazard: No important non-target organisms have been found attractive to SWASS.

Control of Testing: All utilization of SWASS within Texas will be under close control and supervision of program officials. Extensive environment data will be recorded in any usage.

Fate of DDVP: Hydrolyzes rapidly in H₂O.

Mode of Action: Flies are attracted to swormlure and then feed on the sugar-blood bait with DDVP. The flies die shortly after feeding.

Toxicology of DDVP: Oral LD₅₀ for Rats--25 mg/170 Kgm of body weight. Dermal LD₅₀ for Rats--59mg/900 Kgm of body weight.



State of New York: This day appeared before me, the undersigned, a Justice of the Peace for the County of New York, the following persons, to-wit:

John Doe, of the County of New York, who being duly sworn, deposes and says that he is the owner of the premises described in the foregoing petition, and that he is the owner of the same for the purpose of the same.